1. ZAREMBOK, G.V.; GOL'YANOVA, V.V.

2. USSR (600)

4. Faucets

7. Stopper spigot for high pressures, G.V. Zarembok, V.V. Gol'yanova, Mast.-zhir. prom. 18 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ZAREMBOWSKI, Wlodzimierz

Peroral cholecystocholedochography. Polski przegl. radiol. 25 no.1: 81-100 '61.

1. Z Zakladu Radiologii Centr. Szpitala Klin. M.S.W. Kier.: doc. dr W. Trzetrzewinski.

(CHOLECYSTOGRAPHY)

ZAREMBOWSKI, Wlodzimierz

A case of polypoid cholesterolosis of the gallbladder. Polski przegl.radiol. 25 no.3:273-277 My-Je '61.

1. Z Zakladu Radiologii Centralnego Klinicznego Szpitala MSW Kierownik: doc. dr med. W. Trzetrzewinski.

(GALLBLADDER neopl) (POLYPI radiog)

ZAREMBOWSKI, Wlodzimierz

Possibilities and importance of radiophotography in the diagnosis of thoracic diseases. Wiad. lek. 18 no.14: 1143-1149 15 Jl '65.

1. Z Zakladu Radiologii Centralnego Szpitala Klin. Ministerstwa Spraw Wewnetrznych (Kierownik: doc. dr. med. W. Trzetrzewinski) i ze Stacji Radiofotograficznej Poradni Przeciwgruzlicznej Zespolu Profilaktyczno-Leczniczego dla Studentow (Kierownik: dr. med. W. Zarembowski).

PELISHENKO, I.A.; RUDAKOV, V.V.; ZAREMBSKIY, R.A.

Possibility of repeated use of zymosan to obtain the serum protein properdin. Lab.delo 5 no.5:23-25 S-O '59. (MIRA 12:12)

1. Iz kafedry biokhimii (nach. - prof. G.Ye. Vladimirov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(ZYMOSAN) (PROPERDIN)

ZAREMBSKIY, R.A.; IVANOV, I.I.

First All-Union Biochemical Congress and the problems of modern biochemistry. Usp. sovr. biol. 58 no. 2:307-320 S-O '64. (MIRA 17:12)

IVANOV, I.I.; KREPS, Ye.M.; ZAREMBSKIY, R.A., kand. med. nauk

First All-Union Biochemical Conference. Vest. AN SSSR 34 no.5:144-148 My '64. (MIRA 17:6)

1. Chlen-korrespondent AMN SSSR (for Ivanov). 2. Chlen-korrespondent AN SSSR (for Kreps).

ZAREMSKI, D.

2-3

COUNTRY : Yugoslavia
CATEGORY : Farm Animals. Cattle.

ABS. JOUR. : RZhBiol., No. 4, 1959, No. 16685

AUTHOR : Zaremski, Dragan
INSN. : Belgrade University.
TITLE : The Effect of Antibiotics on the Growth of Calves.

ORIG. PUB. : Poljoprivredni Fak. Univ. Beogradu, 1957, 5, No 1, 117-125

ABSTRACT : No abstract.

CARD: 1/1

ZARENIN, V.A.

Many-layered panels for the roofs of industrial buildings. (MIRA 18:11)
Prom. stroi. 41 no.5:18-22 My '64.

89678

S/187/60/000/006/001/001
A189/A026

6.3000 (1051, 1106, 1138)

AUTHOR: Zarenin, Yu. G.

TITLE: Feedback as a Method of Correcting the Frequency Characteristics of Electromechanical Light Modulators

PERIODICAL: Tekhnika kino i televideniya, 1960, No. 6, pp. 38-44

TEXT: The author analyzes the frequency characteristic of electromechanical light modulators and suggests the use of a feedback method as described by G. V. Braude (Ref. 3). The linear channel of the electromechanical light modulator may be represented by the differential equation:

$$\left\{Lmp^3 + \left[Lr + (R_i + R)m\right]p^2 + \left[(R_i + R)r + LS + M^2\right]p + (R_i + R)\cdot S\right\}x = M\cdot e \quad (1)$$

where: p - differential operator; x - displacement of the mechanical system; e - electromotive force of the power source; m - electromechanical coupling factor; L - inductance of the galvanometer electric circuit; R - effective resistance of the galvanometer electric circuit; m - mass of the galvanometer moving system; r - friction of the galvanometer moving system;

Card 1/3

89678

S/187/60/000/006/001/001
A189/A026

Feedback as a Method of Correcting the Frequency Characteristics of Electro-mechanical Light Modulators

S - elasticity of the galvanometer moving system; and R_i - internal resistance of the power source. Starting with this equation, the author proves the theoretical possibility of applying feedback to control the frequency characteristic of the system. Experimental investigations were conducted with a model, shown in Figure 1, and with a 4Д-1 (4D-1) mirror galvanometer produced by the Zavod "Lenkinap" ("Lenkinap" Plant). The model consists of (1) galvanometer, (2) illuminating system, (3) photoelement with slit aperture, (4) preamplifier, (5) instrument for measuring the amplitude of output signal, (6) feedback signal-shaping unit, (7) output amplifier, (8) instrument for measuring the depth of feedback, (9) audio-frequency generator, and (10) unit providing the required modulator feed according to the direct feedback signal. Results of experimental investigations are represented in 8 graphs. Based on these results, the author states that the feedback method permits to control the equation coefficients of the system and it can also be successfully applied to frequency correction of industrial galvanometers. There are 8 graphs, 1 block diagram, 1 circuit diagram, and 4 Soviet references.

Card 2/3

89678

S/187/60/000/006/001/001
A189/A026

Feedback as a Method of Correcting the Frequency Characteristics of Electro-mechanical Light Modulators

(1)

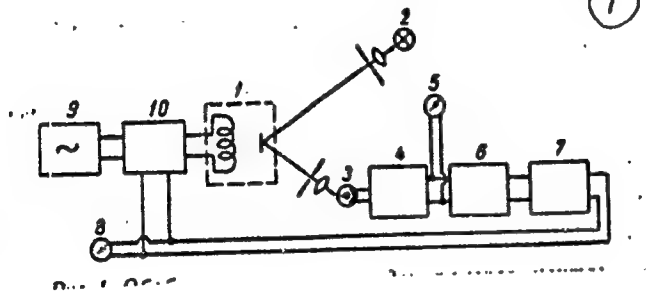


Figure 1:
Block diagram of experimental arrangement

Card 3/3

16.9500

78172
SOV/103-21-3-18/21

AUTHOR: Zarenin, Yu. G. (Kiev)

TITLE: On the Theory of Linear Systems of the Third Order

PERIODICAL: Avtomatika i telemakhanika, 1960, Vol 21, № 3, pp 417-419 (USSR)

ABSTRACT: The paper investigates the amplitude-frequency characteristics of linear systems described by the following differential equation of the third order:

$$(Ap^3 + Bp^2 + Cp + D)\varphi = \psi. \quad (1)$$

where p is a differentiation operator; φ is an instantaneous value at the output of the system; ψ is the instantaneous value of the input signal; A, B, C, and D are constant coefficients. After dividing Eq. (1) by A the new coefficients are designated a, b, c, and d, thus obtaining:

$$(p^3 + ap^2 + bp + c)\varphi = d\psi. \quad (2)$$

Card 1/4

On the Theory of Linear Systems of the Third Order

78172
SOV/103-21-3-18/21

Thereby the equation of the amplitude-frequency characteristic is:

$$K(\omega) = \left| \frac{d}{H(j\omega)} \right| = \frac{d}{\sqrt{(c - a\omega^2)^2 + (b\omega - \omega^3)^2}}. \quad (3)$$

After a single differentiation of the expression under the root sign in the denominator of Eq. (3), and introducing designations:

$$b^2 - 2ac = N \text{ и } 2b - a^2 = R, \quad (4)$$

the polynomium:

$$3\omega^3 - 2R\omega^2 + N\omega = 0, \quad (5)$$

is obtained, the roots of which are:

$$\omega_1 = 0, \ \omega_{2,3,4,5} = \pm \frac{1}{\sqrt{3}} \sqrt{R \pm \sqrt{R^2 - 3N}}. \quad (6)$$

It is shown that in accordance with Eq. (6) three types of frequency characteristics are possible. This is illustrated

Card 2/4

in Fig. 1, where the dotted lines indicate the theoretically

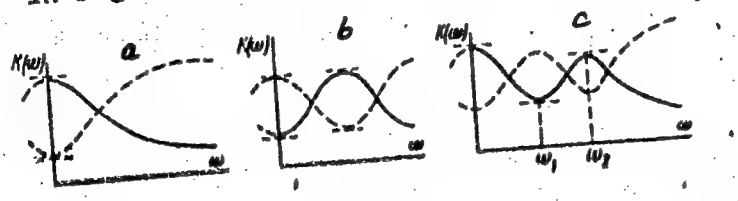


Fig. 1

possible but practically not applicable frequency characteristics. A diagram with N, R coordinates, shown in Fig. 2, is convenient for the practical application of the results obtained. There are 3 figures; and 1 Soviet reference.

SUBMITTED: September 28, 1959

Card 3/4

On the Theory of Linear Systems of the Third Order

78172
SOV/103-21-3-13/21

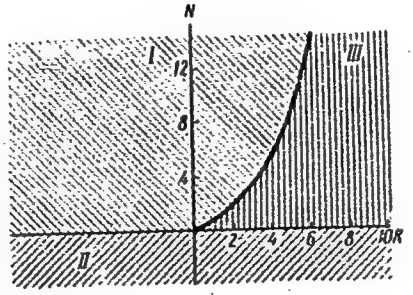


Fig. 2. (I) Region of one extreme; (II) region of two extremes; (III) region of three extremes.

Card 4/4

ZARENIN, Yu.G. [Zarenin, IU.H.], starshiy nauchnyy sotrudnik, kand. tekhn.nauk

Tomorrow of the automation. Nauka i zhyttia 11 no.12:10-11 D '61. (MIRA 15:2)

(Automation)

S/142/62/005/003/004/009
E140/E435

6.9600

AUTHORS: Geranin, V.A., Zarenin, Yu.G., Karnsvskiy, M.I.

TITLE: Redistribution of signal probabilities in systems for the transmission and processing of information

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Radiotekhnika, v.5, no.3, 1962, 339-346

TEXT: The problem frequently arises of transforming the probability distribution of a signal in transmission or in information processing, for example in employing the Monte Carlo method. The authors attempt to solve the problem of specifying the transmission characteristics of a converter, given the input and output probability distributions, for which they know no published solution. A.I.Kitov and N.A.Krinitskiy (Elektronnyye tsifrovyye mashiny i programmirovaniye (Electronic digital computers and programming), Fizmatgiz, 1959) have attempted to solve the special case where the input distribution is uniform but their work is inaccurate. The present work uses the mathematical apparatus developed in probability theory for the related problem of the functional transformation of continuous

Card 1/2

S/142/62/005/003/004/009
E140/E435

Redistribution of signal ...

random quantities, reducing to the determination of the probability distribution of a given random function if the distribution of the argument is known. The solution of the problem is given by a differential equation. Illustrations are furnished by the transformation of "truncated normal" distribution to uniform and the reverse transformation. While the method is not directly applicable to discrete distributions, a method due to A.A.Kharkevich (Ocherki obshchey teorii svyazi (Outline of a general theory of communications), GITTL, 1955) is recommended. There are 5 figures.

ASSOCIATION: Kafedra akustiki i zvukotekhniki, Kiyevskiy ordena Lenina politekhnicheskiy institut (Acoustics and Sound Engineering Department, Kiyev Order of Lenin Polytechnical Institute)

SUBMITTED: November 10, 1960

Card 2/2

YEVTUKHOVA, T.A.; ZARENIN, Yu.G.; MUZYCHUK, V.T.

Method for the realization of the external language of a special-purpose electronic digital computer for the solution of a specific class of logical problems. Avtom. i prib. no.4:26-30 O-D '63. (MIRA 16:12)

1. Institut avtomatiki Gosplana UkrSSR.

GATKIN, Natan Grigor'yevich, kand. tekhn. nauk; GERANIN, Vsevolod Aleksandrovich, kand. tekhn. nauk; KARNOVSKIY, Mark Il'ich, doktor tekhn. nauk; ZARENIN, Yu.O., kand. tekhn. nauk, retsenzent; SKUBCHENKO, S.A., inzh., red.; BEREZOVYY, V.N., tekhn. red.

[Integrators in measuring systems] Integratory v sistemakh izmeroniia. Kiev, Gostekhizdat USSR, 1963. 138 p. (MIRA 17:1)

(Radio measurements) (Radio filters)
(Pulse circuits)

L 38160-65 EWT(d)/EEC(k)-2/EED-2/EWP(1) Pn-4/Po-4/Pq-4/Pac-4/Pk-4/Pae-2/ Pl-4/PK-4 IJP(c) BB/GS
AM5004018 BOOK EXPLOITATION S/

Zaranin, YUriy Henrikhovich (Candidate of Technical Sciences); Inosov, Viktor Leont'yevich (Doctor of Technical Sciences)

Codes in technology (Kody v tekhnitsi). Kiev, Vyd-vo "Tekhnika", 1964. 0250 p. illus., biblio. Errata slip inserted. 540 copies printed.

TOPIC TAGS: data processing, information processing, digital computer, information transfer, coding method, transfer reliability, error detecting code, error correcting code, nonexcess binary code, discrete code, analog code, telemetry code, code conversion

PURPOSE AND COVERAGE: This book is intended for use by engineers working in the field of information processing, telecommunications, telemetry, and computer design. It may also be used by scientists in related fields and students in advances courses on these subjects. The book deals with coding and codes in information theory, as applied to information processing and transfer. It emphasizes those encoders that speed up and improve information transfer. Available published data on coding theor

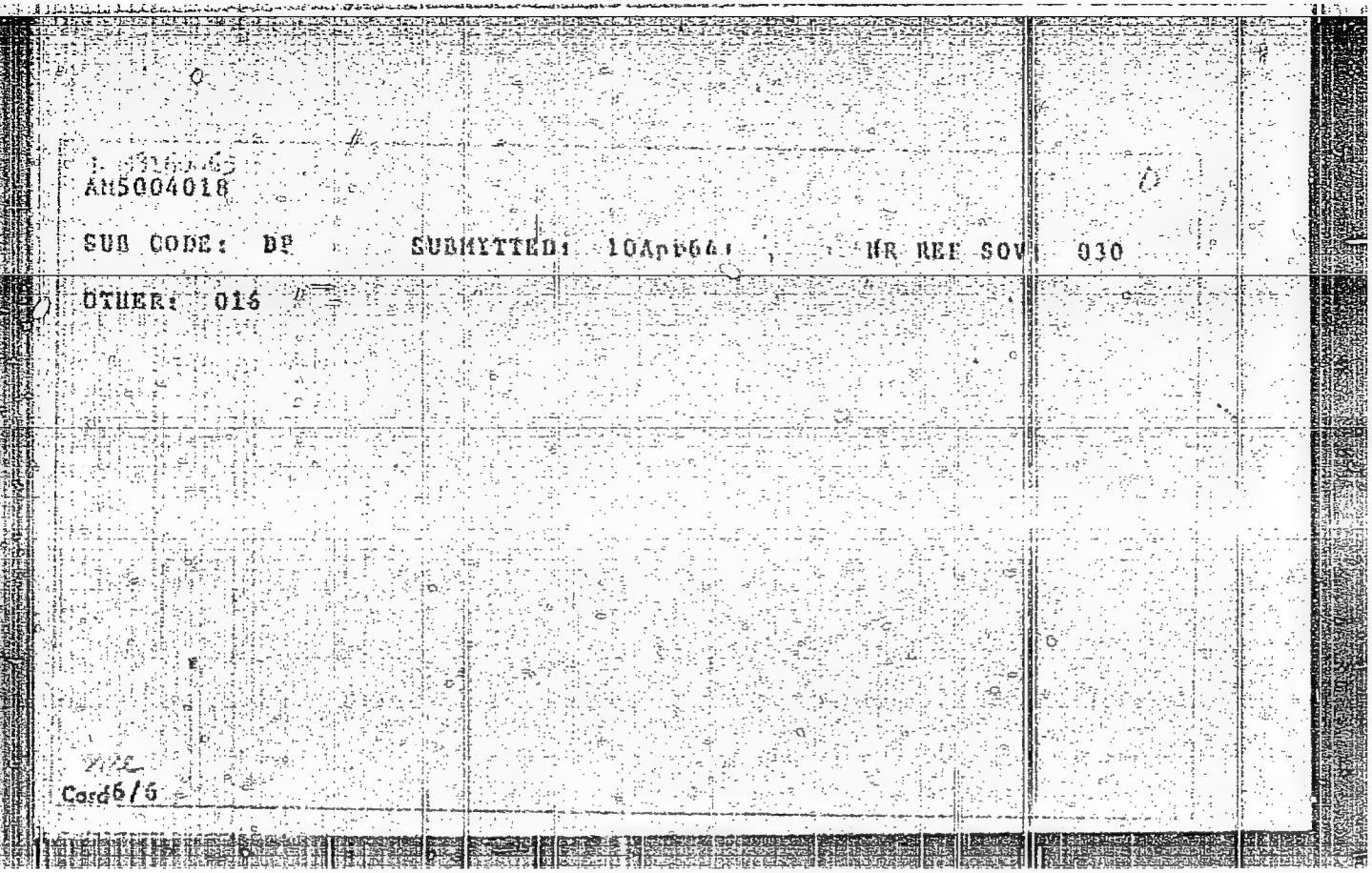
Card 1/6

are cited. Chapters I to III deal with the fundamentals of coding theory. The problems, methods, and forms of coding which have been adopted in communications, telemechanics, and computer engineering are described in the remaining chapters.

TABLE OF CONTENTS:

AM5004018

Core 4/6



ZARENIN, Yu.G.; SHCHECHKIN, Ye.S., inzh., red.

[Error correcting codes for the transmission and processing of information] Korrektiruiushchie kody dlia peredachi i pererabotki informatsii. Kiev, Tekhnika, 1965. 169 p. (MIRA 19:1)

L 25647-66 EWT(d)/EEC(k)-2/T/EWP(1) IJP(c) BS/GG

ACC NR: AM6009814 Monograph UR/

52-51

Zarenin, YUriy Genrikhovich (Candidate of Technical Sciences)

Error-correcting codes for data transmission and processing 60 0+1
(Korrektiruyushchiye kody dlya peredachi i pererabotki informatsii)
Kiev, Izd-vo "Tekhnika", 1965. 169 p. biblio., tables.
6300 copies printed.

TOPIC TAGS: data processing, error correcting code, logic circuit, arithmetic unit, information storage and retrieval

PURPOSE AND COVERAGE: This book is intended for technical personnel concerned with the production and utilization of digital automation systems and computers. It can also be of use to students in advanced correspondence courses of schools of higher education. The book reviews the correcting codes, (i.e., error-detecting and error-correcting codes) as a universal method which can be utilized in designing systems for arbitrary data processing. The concepts of processing and of automation in processing are determined, and ways of describing them are discussed. Error-correcting codes for the three most widely used types of processing, i.e., storage, arithmetic, and logical operations, are reviewed. The theoretical possibilities, the design methods and the quality evaluation of error-correcting

Card 1/4

ACC NR: AM6009814

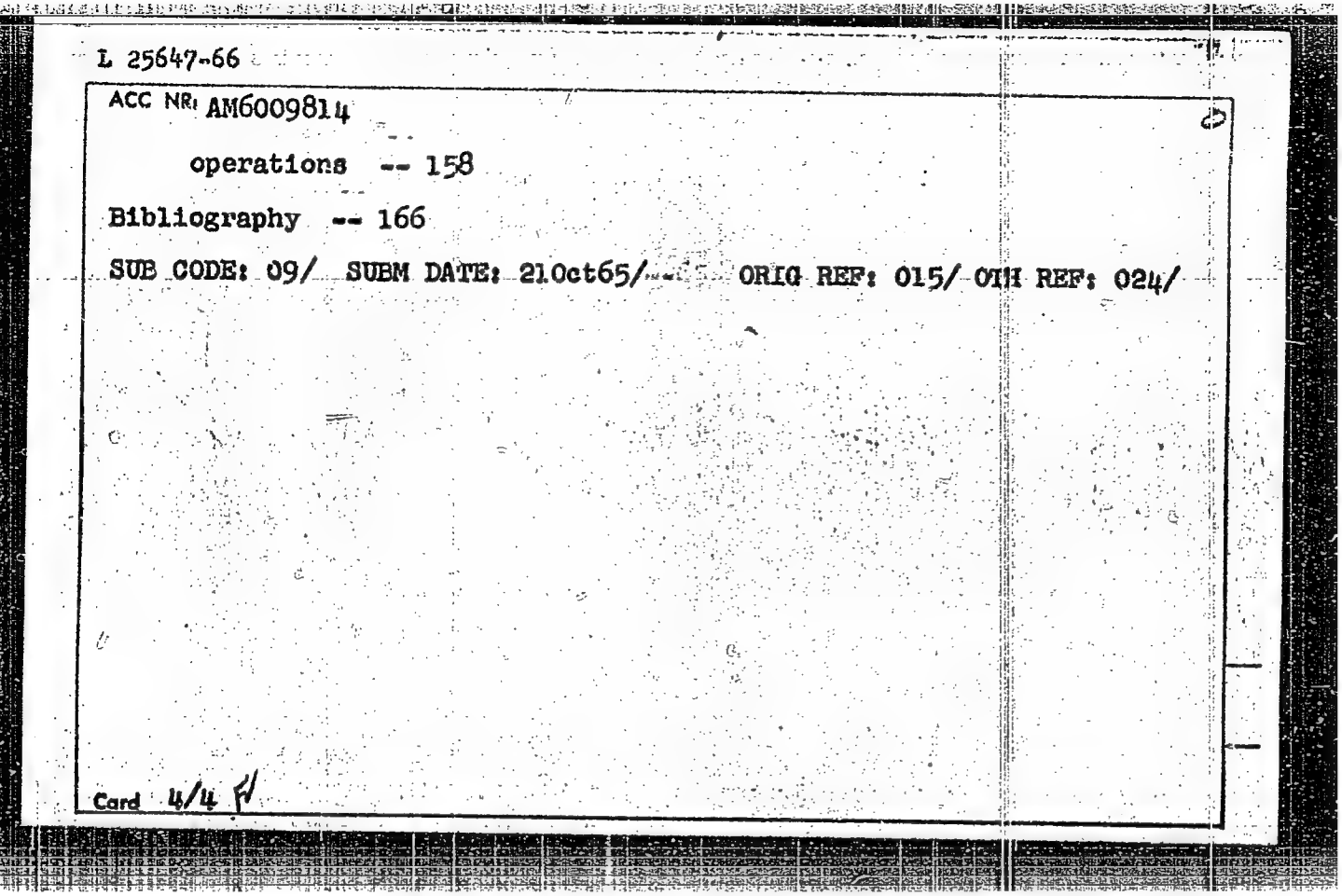
codes are reviewed. The author thanks Doctor of Technical Sciences V. L. Inosov for his advice.

TABLE OF CONTENTS:

L 25647-66

ACC NR: AM6009814

Card 3/4



L 25647-66

ACC NR: AM6009814

operations -- 158

Bibliography -- 166

SUB CODE: 09/ SUBM DATE: 21Oct65/ ORIG REF: 015/ OTH REF: 024/

Card 4/4

L 19457-65 Pb-4 SSD/AFWL/AFETR/AMD/ESD(c)/ESD(gs)

ACCESSION NR: AP5000765 S/0238/64/010/006/0815/0818

AUTHOR: Zarenina, I.L.

TITLE: The effect of television screens on some functions of the visual analyzer

SOURCE: Fiziologicheskiy zhurnal v. 10 no. 6 1964 815-818

were conducted before and immediately after 3 hours of television viewing, and involved a determination of the time threshold [illegible] by television screens. The tests

as the age increased, the time threshold for color differentiation, after viewing a televised program, decreased. In earlier tests on accommodation, it was shown that younger persons

Card 1/2

L 19457-65
ACCESSION NR: AP5000765

are subject to greater fatigue under the influence of television rays. In attempting to determine the reasons for the increased fatigure of the organs of vision, the author expresses her opinion that the most probable reason is the spectral difference between television rays and sunlight. The data obtained led the author to recommend limitation of television viewing to 6-7 hours/week, particularly in people over 40 years of age who show any central nervous system or eye diseases. Orig. art. has: 1 table.

ASSOCIATION: Klinichna likarnya Leninskoho rayonu, Kiev (Medical Clinic of Lenins'k District)

SUBMITTED: 17Apr64 ENCL: 00 SUB CODE: LS

NO REF SOV: 004 OTHER: 000

Card 2/2

ZARENKOV, N.A.; TU VAN LIEU; NGUEN TIEN KAN'

General characteristics of the quantitative distribution of plankton and benthos in the Gulf of Tonkin and the adjacent part of the South China Sea. Dokl. AN SSSR 148 no.6:1389-1391 F '63. (MIRA 16:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom D.I.Shcherbakovym.
(Tonkin, Gulf of--Marine biology)
(South China Sea--Marine biology)

ZARENKOV, N.A.

Notes on some decapod crustaceans(Decapoda, Crustacea) of the Sea of Okhotsk and the Bering Sea. Trudy Inst. okean. 34:343-350 '60. (MIRA 13:10)

1. Kafedra zoologii bespozvonochnykh Moskovskogo gosudarstvennogo universiteta.
(Okhotsk, Sea of--Decapoda) (Bering Sea--Decapoda)

ZARENKOV, N.A.

Materials on comparative ecology of decapods in Far Eastern seas. Zool.zhur. 39 no.2:188-199 F '60. (MIRA 13:6)

1. Chair of Invertebrate Zoology, Moscow State University.
(Soviet Far East--Decapoda (Crustacea))

MUSIYKO, V.A. [Musiiko, V.O.]; ZARETSKAYA, I.V. [Zarets'ka, I.V.]

Serum protein fractions in Brucella infections following roentgen-ray irradiation. Ukr. biokhim. zhur. 36 no.1:46-51 '64.
(MIRA 17:12)

1. Department of Biochemistry of the Pirogov Medical Institute, Odessa.

ZARETSKAS, G.S. [Zareckas, G.]; MATUKONIS, A.V.

Effect of twisting, tension, and time of relaxation on the changes in the torque of rayon multifilament yarns. Izv. vys. ucheb. zav.; tekh. teks. prom. no.6:18-22 '65.

(MIRA 19:1)

1. Kaunasskiy nauchno-issledovatel'skiy institut tekstil'noy promyshlennosti i Kaunasskiy politekhnicheskiy institut. Submitted August 30, 1965.

83739

S/056/60/038/004/032/048
B006/B056

24.6520

AUTHORS: Grin', Yu. T., Drozdov, S. I., Zaretskiy, D. F.

TITLE: The Moments of Inertia of Odd Atomic Nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 4, pp. 1297 - 1303

TEXT: In the regions $150 < A < 190$ and $A > 225$ the atomic nuclei are deformed and, besides single-particle levels, they have also rotational ones. It was found experimentally that the moments of inertia of odd nuclei surpassed those of even nuclei considerably. Several authors have dealt with the derivation of formulas for the moments of inertia of even and odd nuclei, without, however, taking pair correlation into account. The authors of the present paper, for the purpose of determining the moments of inertia (taking pair correlation into account), use the Green functions for a finite system having an odd number of particles. The calculation method is analogous to that used by A. B. Migdal for even-even nuclei (Refs. 3,4). An explicit formula (18) is obtained for δJ, in which the difference of the moments of inertia $J_e(\varkappa_e) - J_e(\varkappa_o)$

Card 1/2

occurs as an unknown term (the subscripts e and o mean even and odd). $\varkappa = \hbar\omega_0\beta/2\Delta$, $\hbar\omega_0 = 41\ A^{-1/3}$ Mev. The Δ values are partly known from the experiment and partly determined by interpolation according to the formula $\Delta_e = \Delta_o + 1/\varrho_o$, where ϱ_o denotes the density of the single-particle levels near the Fermi surface. For calculating the difference of J_e, Δ_e, Δ_o, β_e, and β_o must be known. These four parameters are given in Table 1 for a total of 19 nuclei between $_{64}Gd^{155}$ and $_{96}Cm^{245}$, as well as the relative change in the moments of inertia for nuclei having odd numbers of neutrons $\delta J/J_T$ (in %). (J_T is the moment of inertia of the solid; $\delta J/J_T \sim A^{-1/3}$). Table 2 gives the same parameters for nuclei having odd numbers of protons (11 nuclei from $_{67}Ho^{165}$ to $_{95}Am^{243}$). The authors thank S. T. Belyayev and A. B. Migdal for discussions. There are 2 tables and 9 references: 4 Soviet, 1 US, 1 Dutch, and 3 Danish.

SUBMITTED: November 17, 1959

Card 2/2

ALEKSEYEV, Vladimir Ivanovich; ZARETSKIY, L.S.; TYUKOVIN, I.N.; BOGATOV I.P., retsenzent; BELOV, M.I., retsenzent; IVANOV, K.A., retsenzent; MEYYEROVICH, M.G., retsenzent; ORFANOV, I.K., retsenzent; "ITOV, S.M., retsenzent; TONYAYEV, V.I., retsenzent

[Moscow-Gorkiy-Moscow; guidebook on the Moscow Canal, and the Volga, Oka, and Moscow Rivers] Moskva - Gor'kii - Moskva; putevoditel' po kanalu imeni Moskvy, Volge, Oke i Moskve-reke. Moskva, Izd-vo "Transport," 1964. 101 p. (MIRA 17:6)

ZARENTSKIY, P.A. [Zapats'kyi, P.A.]

Cancer of the corpus uteri; according to materials from the Kharkov Province Oncological Dispensary (1950-1955). Ped., akush. i gin. 23 no.6:53-56 '61. (MIRA 15:4)

1. Ginekologicheskoye otdeleniye Khar'kovskogo oblastnogo onkologicheskogo dispansera (glavnyy vrach - zasluzhennyy vrach USSR N.G. Stanislavskaya [Stanislavs'ka, N.H.].
(UTERUS--CANCER)

DYATLOVA, V.N.; ZARETSKIY, Ye.N., kand. tekhn. nauk, retsenzent; KUBAREV, V.I., inzh., red.

[Corrosion resistance of metals and alloys; a handbook] Korrozionnaia stoikost' metallov i splavov; spravochnik. Izd.2., perer. i dop. Moskva, Izd-vo "Mashinostroenie," 1964. 350 p. (MIRA 17:6)

ZARETSKIY, Ye.Ye.

Methodology for determining the dynamics of economic indices under various growth rates. Trudy LIP no.227:9-14 '63. (MIRA 17:4)

ACCESSION NR: AP4014377 S/0300/64/036/001/0046/0051

AUTHOR: Musiyko, V. O.; Zarets'ka, I. V.

TITLE: Protein fractions of blood serum on infection with the causative factor of brucellosis and irradiation with X-rays

SOURCE: Ukrayins'kyy biokhimichnyy zhurnal, v. 36, no. 1, 1964, 46-51

TOPIC TAGS: irradiation, blood serum, brucellosis, X-ray, alpha sub 1 globulin, alpha sub 2 globulin, electrophoresis, albuminemia, gamma globulin, immunization, brucellosis vaccine

ABSTRACT: The changes in the protein fractions of the blood serum of guinea pigs infected with Br. abortus bovis and subjected to irradiation with X-rays in a dose of 200 r were subjected to an electrophoretic investigation. Infection with brucellosis produced a considerable decrease in the albumin content of the blood serum. Albumineamia also resulted in animals irradiated before or after infection. Infection of the animals or infection preceded or followed by irradiation produced a reduction in the amount of α_1 -globulins and an increase

Card 1/2

ACCESSION NR: AP4014377

in the amount of α_2-globulins. The γ-globulin content increased in the blood serum of animals irradiated before or after infection. The increase in the level of γ-globulins was enhanced by immunization of guinea pigs with live brucellosis vaccine 2 days before irradiation and 30 days before infection with brucellosis. The rate of survival of infected animals after irradiation was increased by immunization. The results obtained are of interest, because irradiation as such, in the absence of infection, reduces the level of γ-globulins in the blood serum. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Kafedra Biokhimii Odesskogo Meditsinskogo Instituta imeni Pirogova (Chair of Biochemistry, Odessa Medical Institute)

SUBMITTED: 22Mar63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: BC, NS NO REF SOV: 005 OTHER: 000

Card 2/2

ZARETSKAS, G.S. [Zareckas, G.]

Type SD-4 instrument for determining the torsion characteristics of textile fibers. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.2: 23-27 '65. (MIRA 18:5)

1. Kaunasskiy nauchno-issledovatel'skiy institut tekstil'noy promyshlennosti.

BUDRIS, A.Ye.; ZARETSKAS, V.S., inzh.

New method of testing the supporting surface of fabrics. Tekst.prom. 21 no.5:77-79 My '61. (MIRA 15:1)

1. Zaveduyushchiy laboratoriyey voloknistykh materialov Instituta energetiki i elektrotekhniki AN Litovskoy SSR (for Budris).
(Textile fabrics--Testing)

KIESHCHEVICH, N.F. [deceased]; ZARETSKAYA, A.D.

Solar heating of seeds reduces disease incidence in wheat.
Zashch. rast. ot vred. i bol. 5 no.9:25 S '60. (MIRA 15:6)
(Wheat--Diseases and pests)
(Solar heating)

VOLODARSKIY, R.F.; ARONOV, V.I.; D'YAKONOV, Ye.G.; SHIRIKOV, V.P.;
FEDYNSKIY, V.V., doktor fiz.-mat. nauk, prof., red.;
ZARETSKAYA, A.I., ved. red.; BASHMAKOV, G.M., tekhn. red.

[Use of electronic calculating machines to interpret gravity and magnetic fields]Primenenie elektronno-schetnykh mashin dlia interpretatsii gravitatsionnykh i magnitnykh polei. Pod red. V.V.Fedynskogo. Moskva, Gostoptekhizdat, 1962. 74 p.
(MIRA 15:9)

(Electronic calculating machines) (Gravity)
(Magnetic anomalies)

HROD, Ignatiy Osipovich; VYSOTSKIY, I.V., red.; LEVINSON, V.G., red.; ZARETSKAYA, A.I., ved. red.

[Fundamentals in the study of oil- and gas-bearing basins] Osnovy ucheniia o neftegazonosnykh basseinakh. Moskva, Izd-vo "Nedra," 1964. 68 p. (MIRA 17:5)

IVANOVA, Z.P., red.; ZARETSKAYA, A.I., ved. red.; POLOSINA, A.B., tekhn. red.

[Stratigraphic scale of Paleozoic sediments; transactions] Stratigraficheskie skhemy paleozoiskikh otlozhenii; trudy. Dodevon. Pod red. Z.P.Ivanovoi. Moskva, Gostoptekhizdat, 1962. 132 p. (MIRA 15:6)

1. Soveshchaniye po utochneniyu unifitsirovannykh stratigraficheskikh skhem paleozoya Volgo-Ural'skoy neftegazonosnoy provintsii, Moscow, 1960. (MIRA 15:6)

(Geology, Stratigraphic)

RIVKIN, Il'ya Yakovlevich; ZARETSKAYA, A.I., ved. red.

[Automatic logging stations; on a compound cable] Avtomaticheskie karotazhnye stantsii; na mnogozhil'nom kabele. Moskva, Nedra, 1964. 275 p. (MIRA 17:12)

ISKANDEROV, Mamed Abdul ogly; MIRCHINK, M.F., red.; ZARETSKAYA, A.I., ved. red.; STAROSTINA, L.D., tekhn. red.

[Efficient development of gas-condensate fields; based on an analysis of the development of gas-condensate oil fields of the Apsheron Peninsula] Ratsional'naia razrabotka gazokondensatnykh mestorozhdenii; na opyte analiza razrabotki gazokondensatnykh i gazokondensatno-neftianykh mestorozhdenii Apsheronskogo poluostrova. Moskva, Gostoptekhizdat, 1963. 58 p. (MIRA 16:10)

1. Chlen-korrespondent AN SSSR (for Mirchink).
(Apsheron Peninsula--Condensate oil wells)

KOMAROV, Sergey Grigor'yevich; MUKHER, A.A., retsenzent; YUNGENS, S.M., ved. red.; ZARETSKAYA, A.I., ved. red.; POLOSINA, A.S., tekhn. red.

[Geophysical methods for well surveying] Geofizicheskie metody issledovaniia skvazhin. Moskva, Gostoptekhizdat, 1963. 407 p. (MIRA 17:1)

1. Glavnyy spetsialist Upravleniya geofizicheskikh rabot Glavnogo upravleniya geologii i okhrany nedr pri Sovete Ministrov RSFSR (for Mukher).

IL'INA, Agniya Petrovna; ZARETSKAIA, A.I., vedushchiy red.; POLOSINA, A.S., tekhn. red.

[Neogene mollusks in Kamchatka] Molliuski neogena Kamchatki. Moskva, Gostoptekhizdat, 1963. 241 p. (Leningrad, Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut. Trudy, no.202). (MIRA 16:6)

(Kamchatka--Mollusks, Fossil)

ROZANOV, Leonid Nikolayevich; OVANESOV, Gurgen Pavlovich; AKSENOV, Adol'f Alekseyevich; NADEZHDIN, Aleksandr Danilovich; ZARETSKAYA, A.I., ved. red.; DUBROVSKAYA, L., tekhn. red.

[Method for rating producible and prospective reserves of oil and gas in platform areas as exemplified by the studies carried out in the Bashkir A.S.S.R.] Metodika otsenki perspektivnykh i prognoznykh zapasov nefti i gaza platformennykh oblastei (na primere Bashkirskoi ASSR). Moskva, Gostoptekhizdat, 1963. 81 p. (MIRA 16:11)
(Bashkiria--Petroleum geology)
(Bashkiria--Gas, Natural--Geology)

VENDEL'SHTEYN, Boris Yur'yevich; LARIONOV, Vyacheslav Vasil'yevich; DAKHNOV, V.N., prof.; ZARETSKAYA, A.I., ved. red.

[Using the data of field geophysics in estimating gas and oil reserves] Ispol'zovanie dannykh promyslovoi geofiziki pri podschete zapasov nefti i gaza; metodicheskoe rukovodstvo. Moskva, Izd-vo "Nedra," 1964. 197 p.
(MIRA 17:6)

FADEYEV, Mikhail Ivanovich; ZARETSKAYA, A.I., ved. red.; YAKOVLEVA, Z.I., tekhn. red.

[Orekhovka key well (Kuybyshev Province)] Orekhovskaia opornaia skvazhina; Kuibyshevskaia oblast'. Moskva, Gostoptekhizdat, 1963. 90 p. (MIRA 16:7)
(Kuybyshev Province--Petroleum geology)

BELOVA, M.B.; VASIL'YEV, V.G.; VLASOV, G.M.; GRYAZNOV, L.P.; DRABKIN, I.Ye.; ZHEGALOV, Yu.V.; KARBIVNICHIY, I.N.; KLENOV, Ye.P.; KRYLOV, V.V.; TITOV, V.A.; ZARETSKAYA, A.I., vedushchiy red.; FEDOTOVA, Y.G., tekhn. red.

[Geology and oil and gas potentials of Kamchatka] Geologicheskoe stroenie i perspektivy neftegazonosnosti Kamchatki. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 343 p. (MIRA 14:9)

(Kamchatka--Petroleum geology)
(Kamchatka--Gas, Natual--Geology)

FEDYNSKIY, V.V., doktor fiziko-matem. nauk, red.; LEVINSON, V.G., kand. geol.-mineral. nauk, red.; TOPCHIYEV, A.V., akad. NAGIYEV, M.F., akad., red.; SHUYKIN, N.I., red.; MIRCHINK, M.F., red.; TREBIN, F.A., doktor tekhn. nauk, red.; SANIN, P.I., doktor khim. nauk; SUKHANOV, V.P., inzh., red.; PANOV, V.V., kand. tekhn. nauk, red.; IONEL', A.G., vedushchiy red.; ZARETSKAYA, A.I., vedushchiy red.; FEDOTOVA, I.G., tekhn. red.

[Reports of the International Petroleum Congress. 5th New York, 1959] Doklady V Mezhdunarodnogo neftianogo kongressa, New York, 1959. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry. Vol.1. [Geology and geophysics] Geologiia i geofizika. Pod red. V.V. Fedynskogo i V.G.Levinsona. 1961. 382 p. (MIRA 14:9)

1. International Petroleum Congress. 5th, New York, 1959. 2. AN Azerbaydzhanskoy SSR (for Nagiyev). 3. Chleny-korrespondenty AN SSSR (for Shuykin, Mirchink).
(Petroleum geology) (Gas, Natural—Geology)
(Prospecting—Geophysical methods)

VASIL'YEV, V.G., red.; ZARETSKAYA, A.I., vedushchiy red.; MUKHINA, E.A., tekhn. red.

[Geophysical prospecting in studying the geology of Eastern Siberia; articles on gephysical investigations] Geofizicheskie raboty pri reshenii geologicheskikh zadach v Vostochnoi Sibiri; sbornik statei po geofizicheskim issledovaniiam. Pod red. V.G.Vasil'eva. Moskva, Gos.nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry, 1961. 230 p. (MIRA 14:6)

1. Russia(1917- R.S.F.S.R.)Glavnoye geologicheskoye upravleniye.
(Siberia, Eastern--Prospecting--Geophysical methods)

PETROV, N.A., red.; PETRENKO, L.I., red.; SAVITSKIY, P.S., red.; SINITSIN, V.I., red.; KOLOTYRKIN, Ya.M., red.; SYRKUS, N.P., red.; ROMM, R.F., red.; AMTYSHEV, P.I., red.; VARTAZAROV, S.Ya., red.; ZAYTSEV, A.I., red.; ZEZYULINSKIY, V.M., red.; ZEDGINIDZE, G.A., red.; MARTYNKIN, F.P., red.; ROGACHEV, V.I., red.; SLATINSKIY, A.N., red.; LEVINA, Ye.S., vedushchiy red.; TITSKAYA, B.F., vedushchiy red.; PERSHINA, Ye.G., vedushchiy red.; IOMEL', A.G., vedushchiy red.; ZARETSKAYA, A.I., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Transactions of the Conference on the Introduction of Radioactive Isotopes and Nuclear Radiation into the National Economy of the U.S.S.R.] Trudy Vsesoiuznogo soveshchaniia po vnedreniiu radioaktivnykh izotopov i iadernykh izluchenii v narodnoe khoziaistvo SSSR. Pod red. N.A.Petrova, L.I.Petrenko i P.S.Savitskogo. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.1. [General aspects of isotope applications. Instruments with sources of radioactive radiation. Radiation chemistry. Chemical and petroleum refining industry]

(Continued on next card)

PETROV, N.A.---(continued) Card 2.
Obshchie voprosy primeneniia izotopov. Pribory s istochnikami radioaktivnykh izlucheniĭ. Radiatsionnaia khimiia. Khimicheskaia i neftepererabatyvaiushchaia promyshlennost'. 1961. 340 p. Vol.2. [Construction and the industry of construction materials. Light industry. Food industry and agriculture. Medicine] Stroitel'stvo i promyshlennost' stroitel'nykh materialov. Legkaia promyshlennost'. Pishchevaia promyshlennost' i sel'skoe khoziaistvo. Meditsina. 1961. 267 p.
(MIRA 14:4)
1. Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniy v narodnoye khozyaystvo SSSR. Riga, 1960.
(Radioisotopes) (Radiation)

PER'KOV, N.A., red.; ZARETSKAYA, A.I., ved. red.

[Album of theoretical curves for electric oil well logging] Al'bom teoreticheskikh krivykh elektricheskogo karotazha skvazhin. Moskva, Nedra, 1964. 17 p. (MIRA 18:4)

IVANOVA, R.M.; ASHRAFI, R.I.; BURIKOVA, Ye.M.; VITTENBERG, Z.V.; ZARETSKAYA, A.R.; NAZAR'YEVA, M.S.; RAFIYENKO, D.V.; BURAKOVA, G.Ye.; KUTSENKO, I.T.; KAS'YANOVA, Ye.M.; PERSHIN, S.P., inzh.

Observations on the stability of track. Put' i put.khoz. no.10:6-7 O '59. (MIRA 13:2)

1. Studenty Moskovskogo instituta inzhenerov zheleznodorozhnogo transporta (for all except Pershin).
(Railroads--Track)

ZARETSKAYA, D.I.

Planning of sections for cultivating Rhizopus fungus by the surface method. Spirt.prom. 26 no.4:19-21 '60. (MIRA 13:8)

(Molds(Botany))

ZARETSKAYA, D.I.

Growing the mold Aspergillus oryzae by the surface streaking method. Spirt. prom. 25 no.5:23-25 '59. (MIRA 12:10)
(Molds (Botany))

ZARETSKAYA, G.B.; POLIAK, V.E.

"Preventive hygienic supervision of the planning and construction of Soviet cities and the provision of public facilities" by K.G. Beriushev. Reviewed by G.B. Zaretskaia, V.E. Poliak. Gig. i san. 24 no.4:90-92 Ap '59. (MIRA 12:7)
(SANITATION)

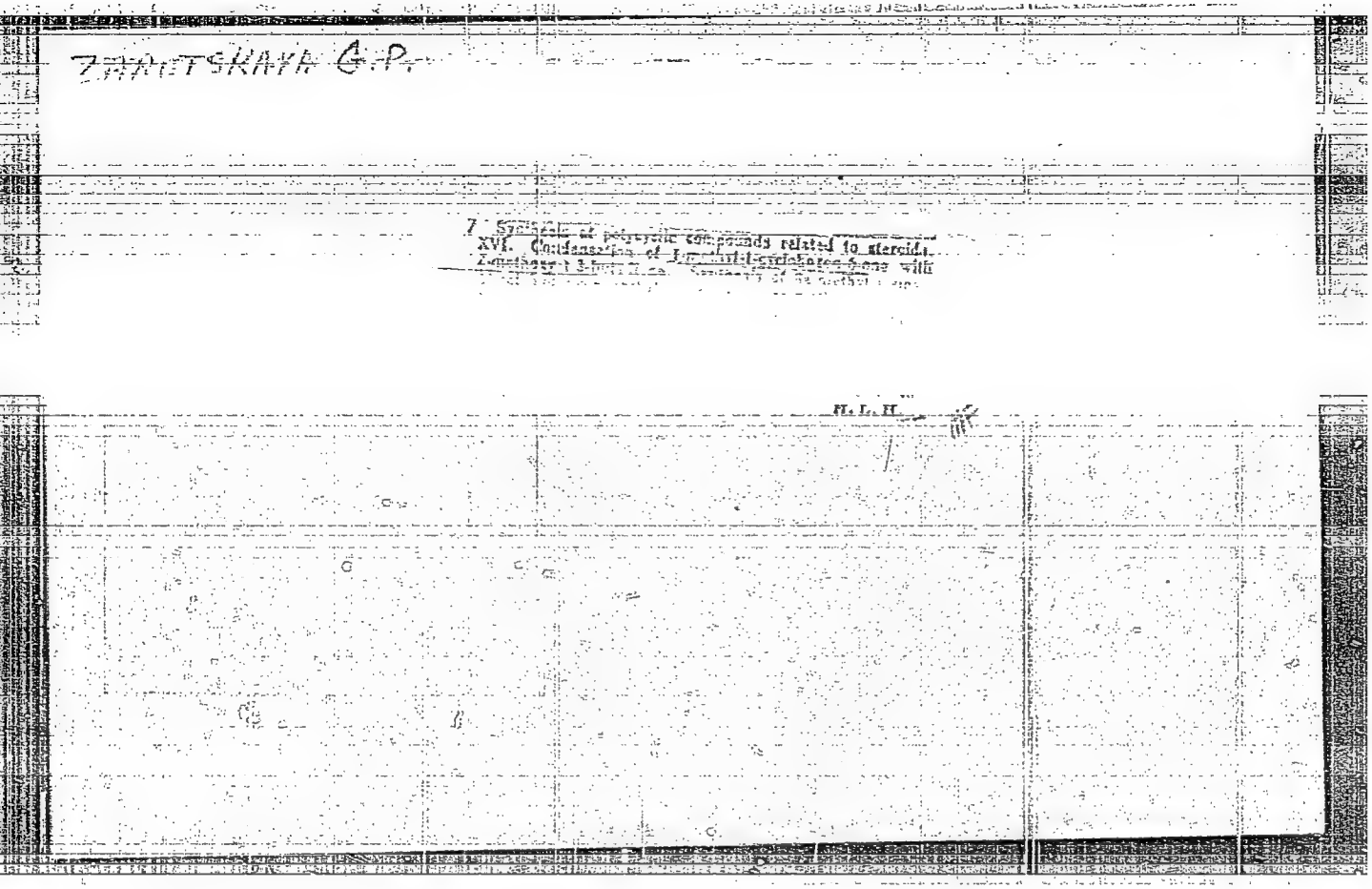
ZARETSKAYA, G.M. (Leningrad); MEL'NICHENKO, A.A. (Leningrad); FILONENKO, N.Ye. (Leningrad)

Investigating silicon carbide formed during the smelting of iron-silicon-chromium alloys. Izv. AN SSSR. Met. i gor. delo no.4:58-62 Jl-Ag '64. (MIRA 17:9)

FILONENKO, N.Ye.; ZARETSKAYA, G.M.

Silicon carbide and ferrosilicochrome. Zhur. prikl. khim. 38 no.4: 941-942 Ap '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut abrazivov i shlifovaniya.



ZABRENKOVA, I. I.

Mor., Acetylene Lab., Inst. Organic Chemistry, Dept. Chem. Sci., Acad. Sci., -1940-c49-.

"Acetylene Derivatives: On the Isomerization of Tertiary Vinylethinylcarbinols," Iz. Ak. Nauk SSSR, Otdel, Khim. Nauk, No. 3, 1940;

"....XVII. Hydration of Hydrocarbons of the Divinylacetylene Series," ibid., No. 1, 1941;

"....XXVII. Hydration of Divinylacetylene," ibid., No. 4, 1942;

"....XXXVI. On the Mechanism of Cyclohydration of Hydrocarbons of Divinylacetylene Series. Cyclization of Allyl Isopropenyl Ketone to 1,3-Dimethylcyclopentene-1-One-5," ibid., No. 1, 1944;

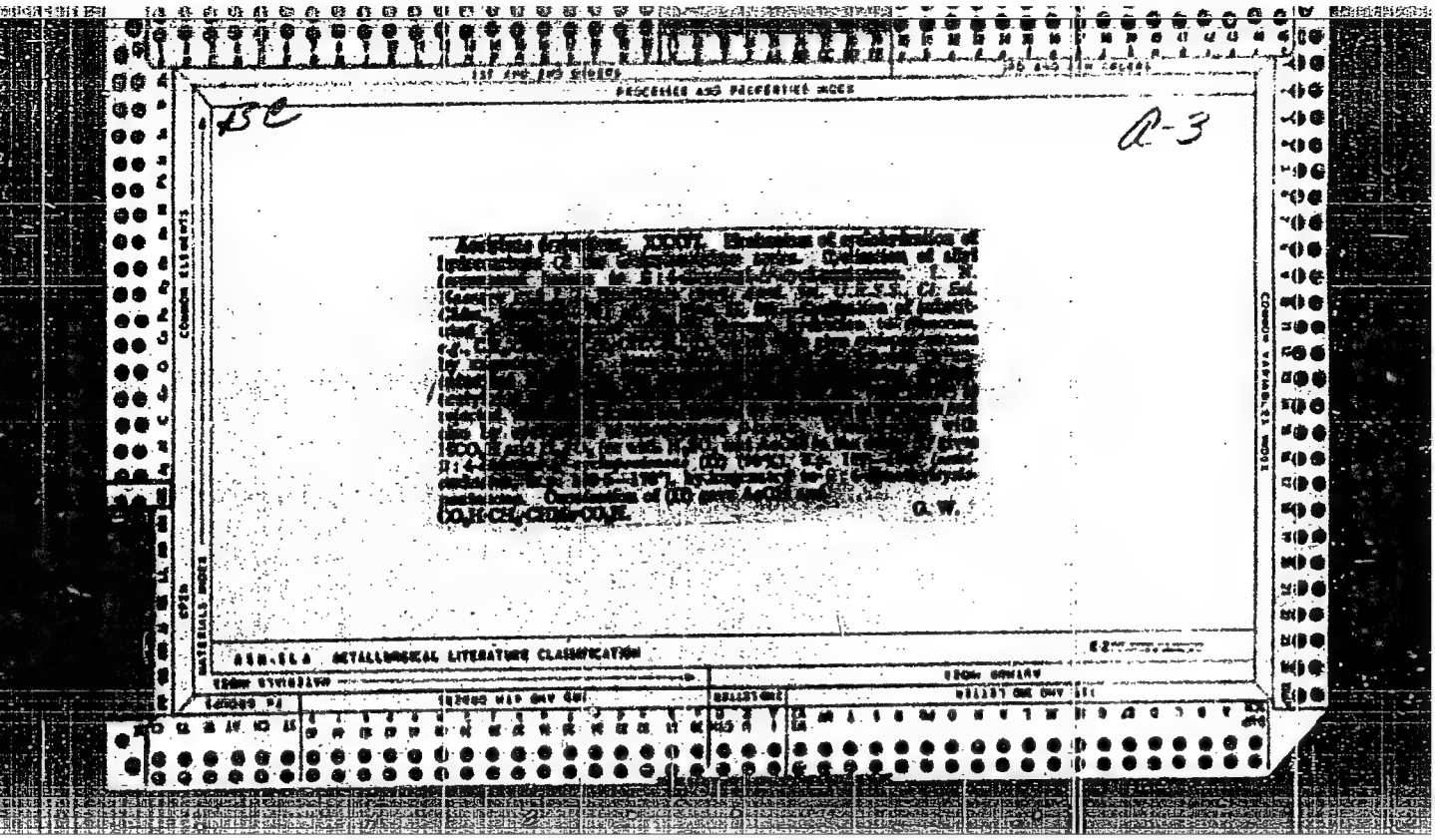
"....XLVIII. The Mechanism of Hydration and Cyclization of 5-Methyl-1, 5 Heptadiene-3-ine," ibid., No. 5, 1946;

10

Derivatives of acetylene. XXVII. Hydration of
divinylacetylene. I. N. Nazarov and I. I. Zaretskaya.
Bull. acad. sci. U.R.S.S., Classe sci. chim. 1942, 200-9
(English summary); cf. C.A. 38, 4560, 6168.—Hydra-
tion of divinylacetylene in 80% MeOH, in the presence of
small amts. of concd. H_2SO_4 and Hg sulfate, at 60-5°
yields a no. of products, as follows: *CH₂:CHCH:CHCO-*
Me, b_{50} 37-40°, n_D^{20} 1.4702, d_4^{20} 0.9278 (hydrogenation
over Pt oxide gives *Me Bu ketone*, b. 120-5°), *2-methyl-*
tetrahydro-1,4-pyrone, b. 157.5-8.5°, b_{15} 51-2°, n_D^{20}
1.4450, d_4^{20} 1.0229 (*semicarbazone*, m. 159-70°), *1-*
methoxy-5-hexen-3-one, b_{15} 68-9°, n_D^{20} 1.4518, d_4^{20} 0.9468
(hydrogenation over Pt oxide gives *2-methoxyethyl Pr*
ketone, b_{11} 53-9°, n_D^{20} 1.4185, d_4^{20} 0.914), *1,5-dimethoxy-3-*
hexanone, b_8 83-4°, n_D^{20} 1.4260, d_4^{20} 0.9658, and *1-hy-*
droxy-5-methoxy-3-hexanone, b_8 98-100.5°, n_D^{20} 1.4420,
d_4^{20} 1.0225. The MeO ketones heated with strong acids in
catalytic amts. lose MeOH and give low yields of the cor-
responding unsatd. derivs. Thus, the methoxyhexenone
yielded *vinyl allyl ketone*, $b_?$ 33-6°, n_D^{20} 1.4730, and the
dimethoxyhexanone gave *2-methyldivinyl ketone*, $b_{?}$
32-42°, n_D^{20} 1.4600. Vinyl allyl ketone, after repeated
distn., was obtained in pure state, $b_?$ 30-1°, n_D^{20} 1.4725,
d_4^{20} 0.8907; it polymerizes on standing to a hard glasslike
polymer; hydrogenation of the monomer yields EtCOPr,
while heating with 10% H_2SO_4, HCO_2H and H_3PO_4-
HCO_2H gave 2-methyltetrahydro-1,4-pyrone. Similar
results were obtained by using the crude or purified hydra-
tion products of divinylacetylene listed above, with fair
yields of the methyltetrahydropyrone; the latter treated
with dry HCl at 80° gave *vinyl 2-chloropropyl ketone*, $b_?$
65-70°, n_D^{20} 1.4748, which, heated with Na_2CO_3 in aq.
Me_2CO, gave 2-methyldivinyl ketone, $b_?$ 63-4°, while
simple heating with H_2O gave the methyltetrahydropyrone.
Methylvinylethynylcarbinol heated with 10% H_2SO_4
and Hg sulfate at 80-90° also gave 2-methyltetrahydro-
1,4-pyrone. Apparently, vinyl allyl ketone is the first
hydration stage of divinylacetylene under the conditions
used. XXVIII. Condensation of vinylethynylcarbinols
into vinylisocoumarans. I. N. Nazarov and O. I. Ver-
kholetova. *Ibid.* 257-67.—Methylethyl(vinylethynyl)-
carbinol (120 g.) was added to 120 g. benzene and 8.5 g.
powd. $FeCl_3$ and stirred for 8.5 hrs. at room temp. fol-
lowed by heating for 3 hrs. at 60-5° and 4 hrs. at 75-80°;
there was obtained 39.8 g. unreacted carbinol and 34.3 g.
1,3-dimethyl-1,3-diethyl-4-vinyl-1,3-dihydroisobenzofuran,
$b_{0.4}$ 117°, n_D^{20} 1.5252, d_4^{20} 0.9663; the product heated with
Bz_2O_2 at 60-70° polymerized to a hard transparent mass,
while hydrogenation gave *1,3-dimethyl-1,3,4-triethyl-1,3-*
dihydroisobenzofuran, $b_{0.4}$ 113.5°, n_D^{20} 1.5042, d_4^{20} 0.9468;
bromination with Br in $CHCl_3$ yields the 4-(*1,2-dibromo-*
ethyl) *analog*, m. 83.5-4° (from EtOH). Analogously,
methylpropyl(vinylethynyl)carbinol yielded *1,3-dimethyl-*
1,3-dipropyl-4-vinyl-1,3-dihydroisobenzofuran, $b_{0.4}$ 116°,
n_D^{20} 1.5180, d_4^{20} 0.9473, which, similarly, polymerized with
Bz_2O_2 and yielded, with H_2, *1,3-dimethyl-1,3-dipropyl-4-*
ethyl-1,3-dihydroisobenzofuran, $b_{0.4}$ 116°, n_D^{20} 1.4991, d_4^{20}
0.9334. Similarly, 1-(vinylethynyl)cyclohexanol gave
1,3-dipentamethylene-4-vinyl-1,3-dihydroisobenzofuran, m.
129° (from EtOH), which on hydrogenation over Pt oxide
gave *1,3-dipentamethylene-4-ethyl-1,3-dihydroisobenzofuran*,
m. 91.5-2° (from EtOH). Similarly, methyl(vinylethy-
nyl)carbinol gave *1,3-dimethyl-4-vinyl-1,3-dihydroisobenzo-*
furan, b_4 80°, n_D^{20} 1.5456, d_4^{20} 1.0069, which polymerizes
to a solid with Bz_2O_2, while hydrogenation over Pt oxide
gave *1,3-dimethyl-4-ethyl-1,3-dihydroisobenzofuran*, $b_{?}$
80°, n_D^{20} 1.5151, d_4^{20} 0.9828. XXIX. Condensation of
phenols with the alcohols of the acetylene and vinylacetyl-
ene series. I. N. Nazarov and A. I. Kuznetsova. *Ibid.*
392-405.—Methylethyl(vinylethynyl)carbinol (I) (130 g.)
was added, at 40°, to 95 g. PhOH and 50 g. H_3PO_4 (d.
1.71) and stirred at 40-60° for 10 hrs. to yield 20.7 g.

5-methyl-1,5-heptadien-3-yne (II), b. 83°, n_D^{20} 1.4900, and
48.1 g. methylethyl(vinylethynyl)(4-hydroxyphenyl)methane,
(III), b. 160-4°, n_D^{20} 1.5530, m. about 12°; treatment of
the phenol with Me_2SO_4 in 20% NaOH gave the methoxy
deriv., b. 140°, n_D^{20} 1.5403, d_4^{20} 0.9700, while treatment
with PhNCO gave the urethan, m. 105°. The MeO deriv.
(IV) is also obtained upon condensation of I with PhOMe
in the presence of H_3PO_4 at 50-60°. Hydrogenation of
the phenol gave methylethylbutyl(4-hydroxyphenyl)methane,
b. 162-3°, d_4^{20} 0.9585, n_D^{20} 1.5153. II (154 g.) and 136 g.
PhOH treated with 70 cc. H_3PO_4 (d. 1.71) at 60-70° for
18 hrs. gave a small amt. of III and 17.1 g. 1,2,3-tri-
methyl-2-cyclopenten-5-one (V), b. 77-8°, n_D^{20} 1.4536,
d_4^{20} 0.9455; semicarbazone, m. 196° (from EtOH); simi-
lar condensation by using PhOMe gave IV and V in low
yield. IV can be obtained in approx. 50% yield by heating
II to 50-60° with H_3PO_4 in the presence of benzene for 30
hrs.; ozonization of the product yields AcOH and βd
methyllevulinic acid, b. 126-7°, n_D^{20} 1.4425; semicarbazone,
m. 173-9°. Methylpropyl(vinylethynyl)carbinol was
condensed analogously with PhOH in the presence of
H_3PO_4 to yield methylpropyl(vinylethynyl)(4-hydroxy-
phenyl)methane, b. 165-70°, b. 163-4°, m. 60-70°, as well
as 5-methyl-1,5-heptadien-3-yne (5-methyl-1,5-octa-
dien-3-yne?); methylation of the phenol with Me_2SO_4
gave the 4-methoxy deriv., b. 160-2°, b. 158°, n_D^{20} 1.5358,
d_4^{20} 0.9620, while hydrogenation over Pt black gave
methylpropylbutyl(4-hydroxyphenyl)methane, b. 160°, n_D^{20}
1.5131, d_4^{20} 0.9180. Dimethylethynylcarbinol condensed
with PhOH in the presence of H_3PO_4, analogously to the
above, gave a low yield of dimethylethynyl(4-hydroxy-
phenyl)methane, b. 118-19°, m. 53-4°, along with small
amts. of isopropenylacetylene, b. 34-40°, and 3,3-di-
methyl-2-methylene-2,3-dihydrobenzofuran, b. 95-6°, n_D^{20}
1.5420; the phenol gave on treatment with Me_2SO_4 in
NaOH soln. the corresponding methoxy deriv., b. 121°,
n_D^{20} 1.5236, d_4^{20} 0.9797, which with $KMnO_4$ gave (4-
methoxyphenyl)dimethylacetic acid, m. 88°. The cou-
maran deriv. on ozonization gave among other products,
as HCO_2H and salicylic acid, the lactone of (2-hydroxy-
phenyl)dimethylacetic acid, b. 105-10°, n_D^{20} 1.5311; this

degree of chain branching. It was shown that in the
C_8-C_9 range the hydrocarbons with 2 quaternary C atoms
or with 1 quaternary and 2 tertiary atoms have octane
nos. in the neighborhood of 100. These are: 2,2,3,4-tetra-
methylhexane (octane no. 114) and 2,2,4,6,6-pentamethyl-
heptane (octane no. 98). 2,3,5-Trimethylhexane was
prepd. as follows: iso-PrMgBr (from 184 g. iso-PrBr) was
treated with 135 g. mesityl oxide at 0° to yield $C_9H_{17}OH$,
b. 44-6°, n_D^{20} 1.4468, d_4^{20} 0.8304; this was dehydrated over
Al_2O_3 at 250-70° to yield C_9H_{16} (2,3,5-trimethyl-2,4-
hexadiene), b. 28°, n_D^{20} 1.4458, d_4^{20} 0.7791; hydrogenation
over Pd gave the above paraffin b. 129°, d_4^{20} 0.7258,
60% EtOH). Hydrogenation over Pt in EtOH gave 1,3-
dimethyl-5-cyclopentanone, b. 152-4°, n_D^{20} 1.4311, d_4^{20}
0.8860; semicarbazone, m. 165.5-6° (from 60% EtOH).
The cyclization also occurs on heating the ketone with
mixed H_2SO_4-AcOH. XXXVII. Hydrogenation of ter-
tiary vinylethynyl carbinols. I. N. Nazarov and L. B.
Fisher. *Ibid.* 71-8.—Methylethyl(vinylethynyl)carbinol
in Et_2O on prolonged shaking with coppered Zn dust in
water gave mixed 5-methyl-3,4-heptadien-5-ol and 5-
methyl-1,3-heptadien-5-ol, b. 60-1, n_D^{20} 1.4605, d_4^{20} 0.8705.
Reduction over Pd gave methylethylbutylcarbinol, b.
160-1°. Methylethyl(vinylethynyl)carbinol treated with
aq. $KMnO_4$ gave $(CO_2H)_2$, HCO_2H and methylethyl-
hydroxyacetic acid, m. 67°. Reduction of methylpropyl-
(vinylethynyl)carbinol with coppered Zn dust, as above,
gave only incomplete reaction (even after 525 hrs.), the
distn. product mixt. contg. the starting carbinol mixed,
probably, with allenic alc. and 1,3-diene alc.; the mixt.
b. 77-8°, n_D^{20} 1.4700, d_4^{20} 0.8715. Hydrogenation over
Pd in EtOH gave methylpropylbutylcarbinol, b. 178-9°.
Methylpropyl(vinylethynyl)carbinol oxidized by aq.
$KMnO_4$ gave methyl propyl ketone, $(CO_2H)_2$, HCO_2H,
and methylpropylhydroxyacetic acid. Diethyl(vinyl-
ethynyl)carbinol reduced with coppered Zn dust as above
gave only a mixt. of starting product with possibly the
allenic alc. and diene alc.; the reduction proceeds
extremely slowly. The mixt. b. 68-9°, n_D^{20} 1.4750, d_4^{20}



NAZAROV, I.N.; KAZITSYNA, L.A.; ZARETSKAYA, I.I.

Absorption spectrum analysis of 2,4-dinitrophenylhydrazones of carbonyl compounds. Zhur. ob. khim. 27 no.3:606-623 Mr '57. (MLRA 10:6)

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Hydrazones--Spectra) (Carbonyls)

ZARETSKAYA I.I.

NAZAROV, I.N., ZARETSKAYA, I.I.

Structure of the hydration products of divinylacetylene hydrocarbons. (MLRA 10:6)
Zhur. ob. khim. 27 no.3:624-646 Mr '57.

1. Institut organicheskoy khimii Akademii nauk SSSR.
(Vinyl compounds) (Hydrocarbons)

ZARETSKAYA, I. I.

USSR/Chemistry - Acetylene, Derivatives
Chemistry - Olefins, Hydration of

Apr 48

"Acetylene Derivatives: No 65, Mechanism of the Hydration and Cyclization of of Dienes," I. N. Nazarov, I. I. Zaretskaya, Inst Org Chem, Acad Sci USSR, 9 3/4 pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No 4

5-Methyl-1, 5-octadiene-3-in and 5-ethyl-1, 5-heptadiene-3-in are readily hydrated inaqueous solutions of methanol in the presence of sulfuric acid and mercury sulfate, forming 5-methyl-1, 5-octadiene-4-on and 5-ethyl-1, 5-heptadiene-4-on. Both of these are readily cyclized by phospheric or hydrochloric acid at 60 - 65°, forming the corresponding cyclopentanones. The latter can also be prepared directly from dienins by cyclohydration. Submitted 7 Apr 1947.

PA 8/49T40

ZARETSKAYA, I. I.

"Hydration of Hydrocarbons of the Divinyl-Acetylene Series and Cyclization of Vinyl Allylketones Into Cyclopentenones."

Thesis for degree of Cand. Chemical Sci. Sub. 28 Apr 49, Inst of Organic Chemistry, Acad Sci, USSR

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

ZARETSKAYA, I. I.

USSR/Chemistry-Acetylene, Derivatives Mar/Apr 49
Chemistry-Hydration

"Acetylene Derivatives: No 87, Mechanism of Diene Hydration and Cylization, XVII, H ydration and Cyclization of 5-Propyl-1, 5-Octadiene-3-ine," I. N. Nazarov, I. I. Zaretskaya, Inst of Org Chem, Acad Sci USSR, 6 pp

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 2

Describes hydration of 5-propyl-1, 5-octadiene-3-ine into 5-propyl-1, 5-octadiene-4-on and cyclization of thi s dienone into 3-methyl-2-ethyl-1-propyl-1-cyclopentene-5-on. Submitted 20 Mar 48.

PA 43/49T10

ZARETSKAYA, I. I.

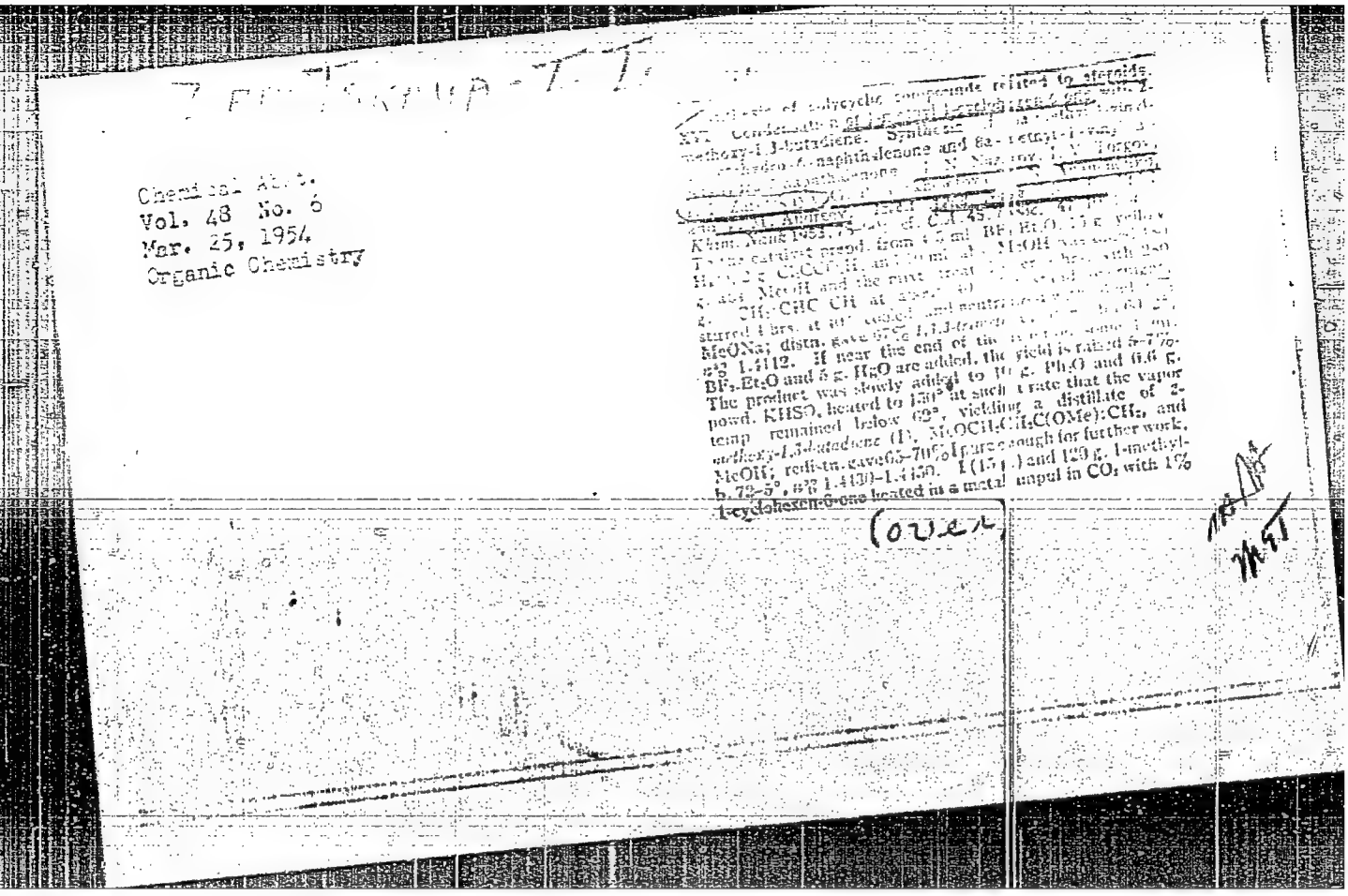
USSR/Chemistry-Acetylene, Derivatives
Chemistry-Hydration Mar/Apr 49

"Acetylene Derivatives: No 38, Mechanism of Diene Hydration and Cyclization, XVII, Hydration and Cyclization of 5-Methyl-1, 5-tetradecadiene-3-Ine," I. N. Nazarov, I. I. Zaretskaya, Inst of Org Chem, Acad Sci USSR, 6 pp

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 2

Describes hydration of 5-methyl-1, 5-tetradecadiene-3-ine into 5-methyl-1, 5-tetradecadiene-4-on and cyclizes the latter into 1,3-dimethyl-2-octyl-1-cyclopentene-5-on. Submitted 20 Mar 48.

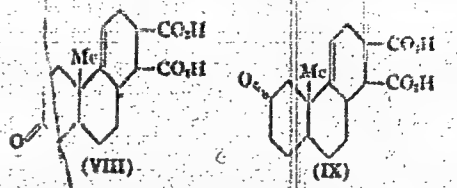
PA 43/49T9



Chemical Abs.
Vol. 48 No. 6
Mar. 25, 1954
Organic Chemistry

cover

PhNEt$_2$ 2.5 hrs. at 200–70° yielded after repeated distn. 44% *mixed 8a-methyl-6-methoxy-Δ^5-octahydro-1-naphthalenone* (IA) and *8a-methyl-7-methoxy-Δ^5-octahydro-1-naphthalenone* (II), b$_1$ 92–6°. IA *semicarbazone* (provisionally characterized), m. 208–9.5°. Hydrogenation of mixed IA-II over Pd in dioxane gave *8a-methyl-7-methoxydecahydro-1-naphthalenone*, b$_{0.1}$ 89–91°, n_D^{25} 1.4592, d_4^{25} 1.039; *semicarbazone*, m. 199–202° (decompn.). To 7 g. Na in 300 ml. liquid NH$_3$ was added over 2 hrs. C_2H_2 at 20 l./hr., then 10.7 g. mixed IA-II in Et$_2$O, the C_2H_2 flow continued 9 hrs., 20 g. NH$_4$Cl added, and the mixt. allowed to stand overnight; treatment with H$_2$O and extn. with Et$_2$O gave 2 g. *1-ethynyl-8a-methyl-6-methoxy-Δ^5-octahydro-1-naphthol* (III), m. 123–3.5° (from CHCl$_3$). The mother liquor gave 6 g. mixed III and its *7-MeO isomer*, b$_1$ 119–21°, n_D^{25} 1.5203. The use of K or Li failed to give better results. Shaking III in Et$_2$O 2 hrs. with 8% HCl gave 100% *1-ethynyl-8a-methyl-1-hydroxydecahydro-6-naphthalenone* (IV), m. 155–6°. To 17 g. Na in 850 ml. liquid NH$_3$ was added 40 l. C_2H_2 in 1 hr., and, with a reduced rate of C_2H_2 flow, the mixt. was treated with 80 g. mixed IA-II in 250 ml. Et$_2$O, the passage of C_2H_2 continued 6 hrs., and the mixt. kept overnight at −70°, treated with C_2H_2 5 hrs., allowed to warm to −35°, treated with 60 g. powd. NH$_4$Cl, allowed to evap.; the residue, after addn. of Et$_2$O, was treated with ice H$_2$O, and the coned. org. layer treated with 100 ml. 1% HCl and stirred 3 hrs., yielding 34–9 g. IV, m. 158° (from EtOH or C_6H_6). The mother liquor treated with petr. ether gave 6–8 g. *7-oxo isomer* of IV, m. 144° (from EtOH); the residue (13–16 g.) was a mixt. of the 2 substances, b$_{0.1}$ 134–6°, n_D^{25} 1.5238). Hydrogenation of IV over PtO$_2$ in EtOH gave the *1-Et analog*, m. 127–8°; the other isomer similarly gave *1-ethyl-8a-methyl-1-hydroxydecahydro-7-naphthalenenone*, m. 86°. Hydrogenation of IV in dioxane over Pd (1 mole H absorbed) gave a viscous mass, crystg. very slowly; the pure *1-vinyl analog* of IV m. 111–13° (from petr. ether). The *1-vinyl-8a-methyl-1-hydroxydecahydro-7-naphthalenone* (V), m. 114–15°, crystd. rapidly. Dehydration of these over KHSO$_4$ in the presence of pyrogallol at 140–5°/40–5 mm. gave, resp. 67% *1-vinyl-8a-methyl-Δ^5-octahydro-6-naphthalenone* (VI), b$_1$ 114–17°, b$_1$ 100–3°, n_D^{25} 1.5260, d_4^{25} 1.022 (*semicarbazone*, m. 174.5–6.5° (from EtOH)), and 74% *1-vinyl-8a-methyl-Δ^5-octahydro-7-naphthalenone* (VII), b$_{0.4}$ 91–6°, n_D^{25} 1.5270 (*semicarbazone*, m. 196–7°). Hydrogenation of mixed IV and its 7-oxo isomer over Pd gave some 30% V, and dehydration of the residue gave 40% mixed VI-VII. VI reacted spontaneously with maleic anhydride and treatment of the product with alc. aq. KOH, followed by acidification, gave the previously described dicarboxylic acid (VIII), m. 290–2.5°. VII similarly gave the dicarboxylic acid (IX), decomp. 203°, becoming transparent only at 210°. V (2 g.), 10 ml. MePh, and 0.05 g. powd. KOH

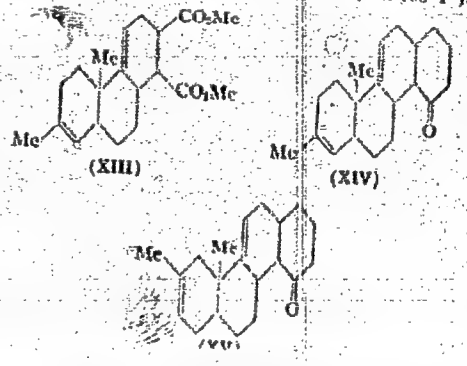


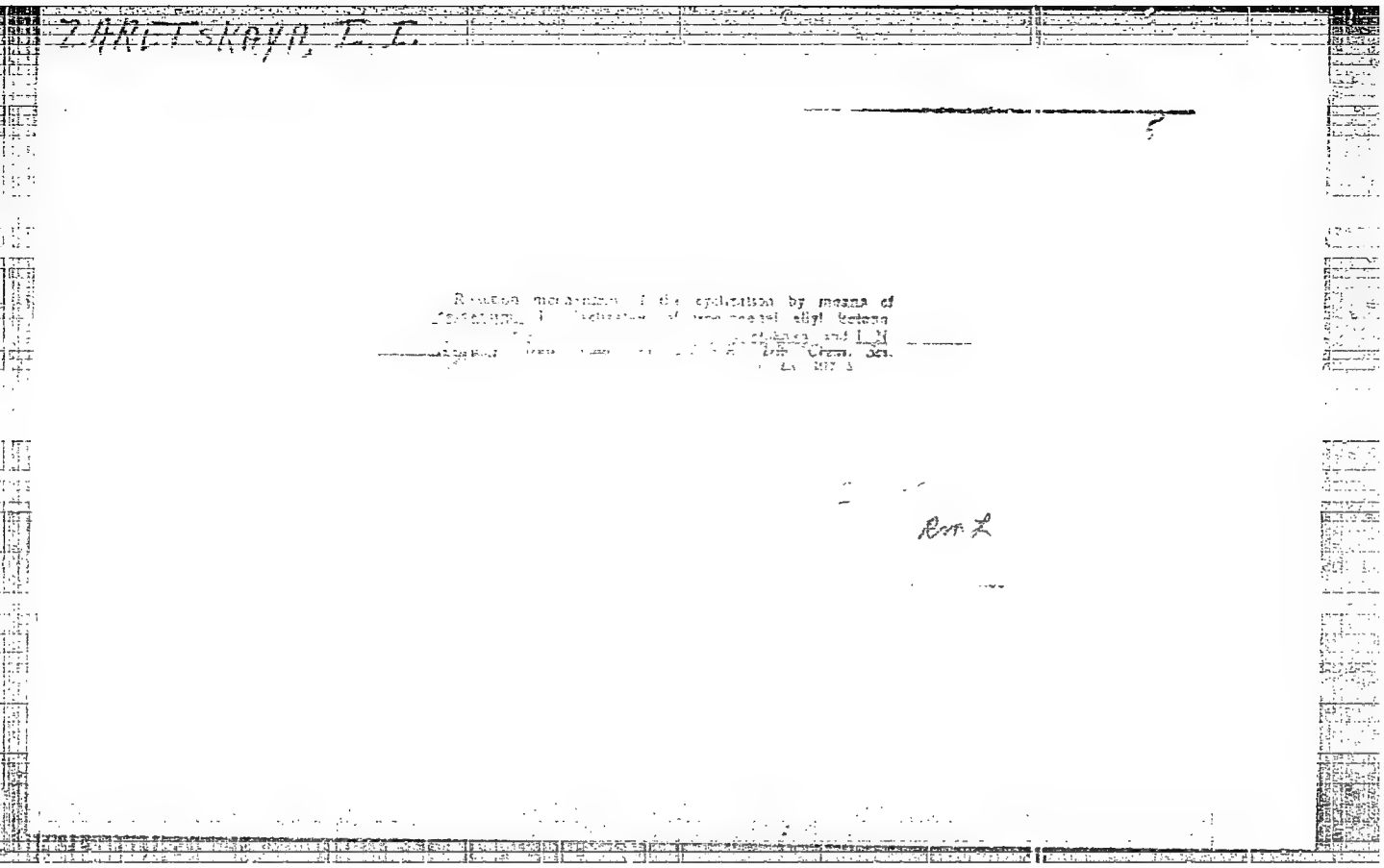
(VIII) (IX)

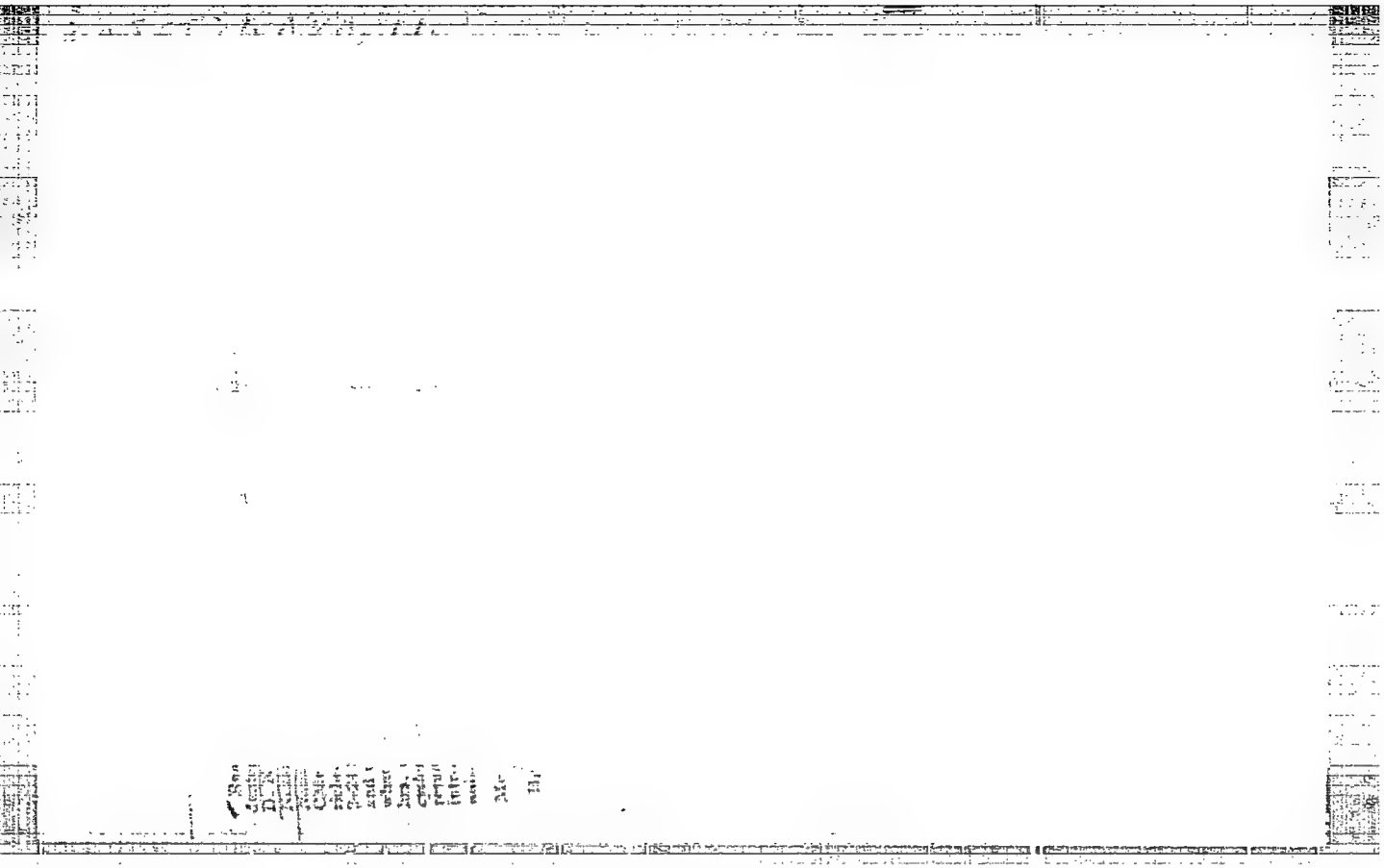
heated 0.5 hr. at 110° gave C_2H_2 and a trace of *8a-methyl-1,6-dioxodecahydronaphthalene*, m. 61–2°. To MeMgBr (from 13 g. MeBr) was added in 10 min. at 5–10° 5 g. VI and the mixt. refluxed 5 min.; after decompn. with ice and 20% HCl, the org. layer gave 90% *1-ethynyl-6,8a-dimethyl-Δ^5-octahydro-6-naphthol* (X), b$_{0.4}$ 91–4°, n_D^{25} 1.5260. Similarly was obtained 87% *1-vinyl-7,8a-dimethyl-Δ^5-octahydro-7-naphthol* (XI), b$_{0.4}$ 92–6°, n_D^{25} 1.5233. Dehydration over KHSO$_4$ in the presence of pyrogallol at 140–50°/45 mm. gave, resp., 66% *1-vinyl-6,8a-dimethyl-Δ^{1,5}-hexahydronaphthalene* (XII), b$_{0.4}$ 72–2°, n_D^{25} 1.5240, d_4^{25} 0.940, and *1-vinyl-7,8a-dimethyl-Δ^{1,5}-hexahydronaphthalene* (XIIa), b$_{0.4}$ 68–70°, n_D^{25} 1.5220. XII (5.8 g.) heated with 15 g. dl-Me maleate 6 hrs. at 100° followed by removal of unused ester in,

vacuo and heating the residue with $KHSO_4$ and little pyrogallol 0.25 hr. at 160–70°/25 mm. gave 4.3 g. XIII, b_4 185–70°, n_D^{25} 1.5200, which, heated 3 hrs. with aq. alc. NaOH, gave the free *acid*, does not m. 200°. XI treated similarly gave the corresponding *ester* (not characterized) but hydrolysis of the latter gave only a viscous mass. The free acid of XIII heated in a N atm. with Pd-C in C_6H_4 11

hrs. at 370° reacted incompletely [illegible] yielded but 50 mg. *2-methylphenanthrene*, m. 57–8.5°. *picrate*, m. 145–47°. Dehydrogenation of the viscous isomeric acid failed to yield a solid product. Heating 1.2 g. XII and 3.1 g. 2-cyclohexenone in CO_2 in an ampul 4 hrs. at 200° gave 0.6 g. crude ketone (XIV), b_3 160–6°, which was used in this form. Similarly XIIIa gave crude ketone (XV), b_3 145–55°, which was used in this state. Heating 0.5 g. XIV in 3 ml. $O(CH_2CH_2OH)_2$ with 0.4 g. $NpH_2.H_2O$ 6 hrs., then with 0.4 g. Na in 10 ml. $O(CH_2CH_2OH)_2$ 10 hrs. at 195° and 3 hrs. at 220°, extn. of the dild. mixt. with Et_2O, evapn. of the washed ext., and heating the residue with 5% Pd-C in C_6H_4 6 hrs. at 350° in a N atm. gave 14 mg. *2-methylchrysene*, m. 232–3° (*picrate*, m. 145.5–6.0°). Similarly 1.2 g. XV gave 0.45 g. crude product, $b_{0.5}$ 126–30°, dehydrogenated as above to 15 mg. *3-methylchrysene*, m. 160–0° (*picrate*, m. 160–1°).







APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963820008-4"

ZARETSKAYA, T. I.

USSR.

ZARETSKAYA, I. I.

(1)

The mechanism of the cyclization reaction by means of deuterium. II. *I. N. Nazarov, I. I. Zaretskaya, Z. N. Parnes, and D. N. Kursanov. Izvest. Akad. Nauk S.S.S.R. Otdel. Khim. Nauk* 1953, 519-23; cf. *C.A.* 48, 3271c.— It was previously shown that cyclization of 2-methyl-1,5-hexadien-3-one in D-enriched H_3PO_4 results in the entry of D into the cyclopentenone deriv., indicating the correctness of the ionic nature of the reaction as proposed by Nazarov (*C.A.* 48, 611d), in which in the initial step D^+ adds to the terminal C of the allyl group. The location of the D in the product was now investigated. The deutero-2,4-dimethyl-2-cyclopenten-1-one, obtained as described above, was ozonized, yielding $HO_2CCHMeCH_2CO_2H$, which contained substantially all the D that was present in the cyclopentenone. Thus the presence of D on the 1-, 2-, 3-, or 6-positions is excluded. Oxidation of the cyclopentenone with SeO_2 gave D-free 2,4-dimethyl-2-cyclopentene-1,5-dione, m. 64-5°. Hence D must be present in the 5-position, i.e. the methylene group adjacent to the carbonyl. This shows that the cyclization is entered not by CH_2:CHCH$_2$COCMe:CH_2, but by its isomer, MeCH:CH-COCMe:CH_2. No exchange of D occurs between the cyclopentenone deriv. and AcOH-AcOD. G. M. K.

ZARETSKAYA, I. I.

USSR/Chemistry - Synthesis

Card 1/1 : Pub. 40 - 18/22

Authors : Nazarov, I. N.; Zaretskaya, I. I.; Verkholetova, G. P.; and Torgov, I. V.

Title : Synthesis of steroid compounds and their substances. Part 19.-

Periodical : Izv. AN SSSR. Otd. khim. nauk 5, 920-928, Sep-Oct 1953

Abstract : The realization of a complete synthesis of D-homosteroid diketones of the cis-cis series (with keto-group in position 15), through the condensation of 1-vinyl-9-methyl-Δ^1-6-octalone with 1-methyl-Δ^1-cyclohexene-6-one, is described. The four isomeric tetricyclic ketones, formed as result of condensation and their physico-chemical properties, are also described. The displacement of the double bond from positions 9 to 11 and 8 to 9 was observed during the process of diene condensation. By reducing the steroid ketones, according to the Clemmens method, only the keto-group in the A-ring is eliminated and diketone converts into 15-monoketone. Eight references: 4-USSR; 2-USA and 2-German (1929-1953).

Institution : Academy of Sciences, USSR, Institute of Organic Chemistry

Submitted : October 7, 1952

ZARETSKAYA, I. I.

USSR/Chemistry - Synthesis

Card 1/1 : Pub. 40 - 19/22

Authors : Nazarov, I. N.; Verkholetova, G. P.; Torgov, I. V.; Zaretskaya, I. I.; and Ananchenko, S. N.

Title : Synthesis of steroid compounds and their substances. Part 20. -

Periodical : Izv. AN SSSR. Otd. khim. nauk 5, 929-940, Sep-Oct 1953

Abstract : The synthesis of steroid diketones of the cis-cis series is described. The formation of three isomeric diketones, two of which have an inverted structure and are distinguished by a spatial position of substituents, is explained. The products derived from the condensation of 1-vinyl-9-methyl-Δ^1-6-octalone with Δ^1-cyclopentenone and with 1,3-dimethyl-Δ^1-cyclopentene-4,5-dione and their characteristics, are described. Nine references: 7-USSR and 2-USA (1935-1953).

Institution : Academy of Sciences USSR, Institute of Organic Chemistry

Submitted : October 7, 1952

ZARETSKAYA, I.I.

Reaction mechanism of the cyclization by means of deuterium. III. D. N. Kursanov, Z. N. Parnes, I. I. Zaretskaya, and I. N. Nazarov. *Bull. Acad. Sci. U.S.S.R. Div. Chem. Sci.* 1954, [illegible] (Engl. translation).—See *C.A.* 49, 13910a. H. M. R.

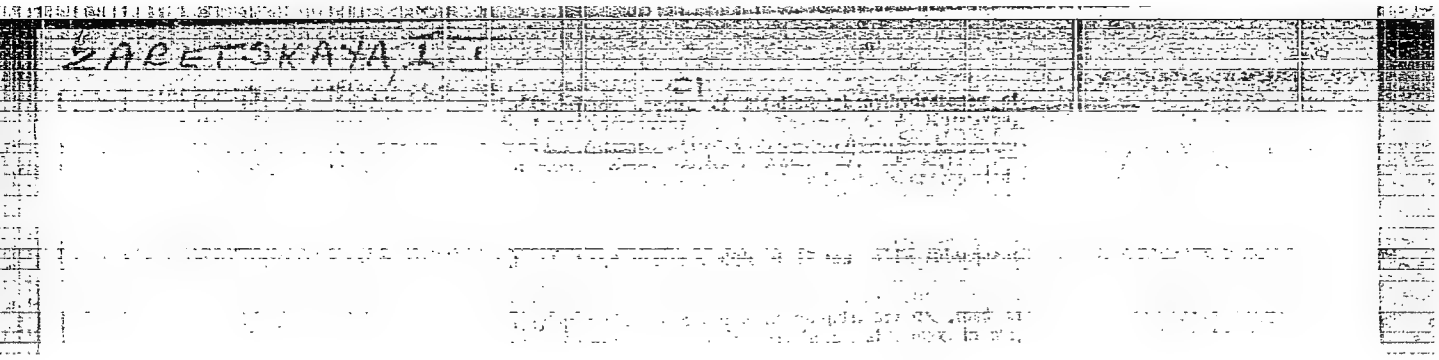
(2)

ZARATSKAYA, I. I.

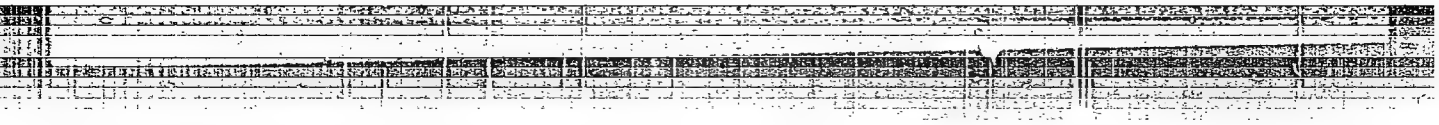
... by oxidation by means of ...

... and higher org. acids, the ... mixed yielding HCO_2H and higher org. acids, the ... yielding cryst. α-diketo-α-isopropyl-β,β-dimethylbutyric acid, m. 48°. Oxidation of this with $Br\text{-}H_2O$ gave α-deketo-α-isopropyl-β,β-dimethylsuccinic acid, m. 134-6°, which retained the same units of ... as the cyclic ketone. A mechanism for the cyclization is presented which is consistent with the exptl. results. G. M. Kosolapoff

(2)

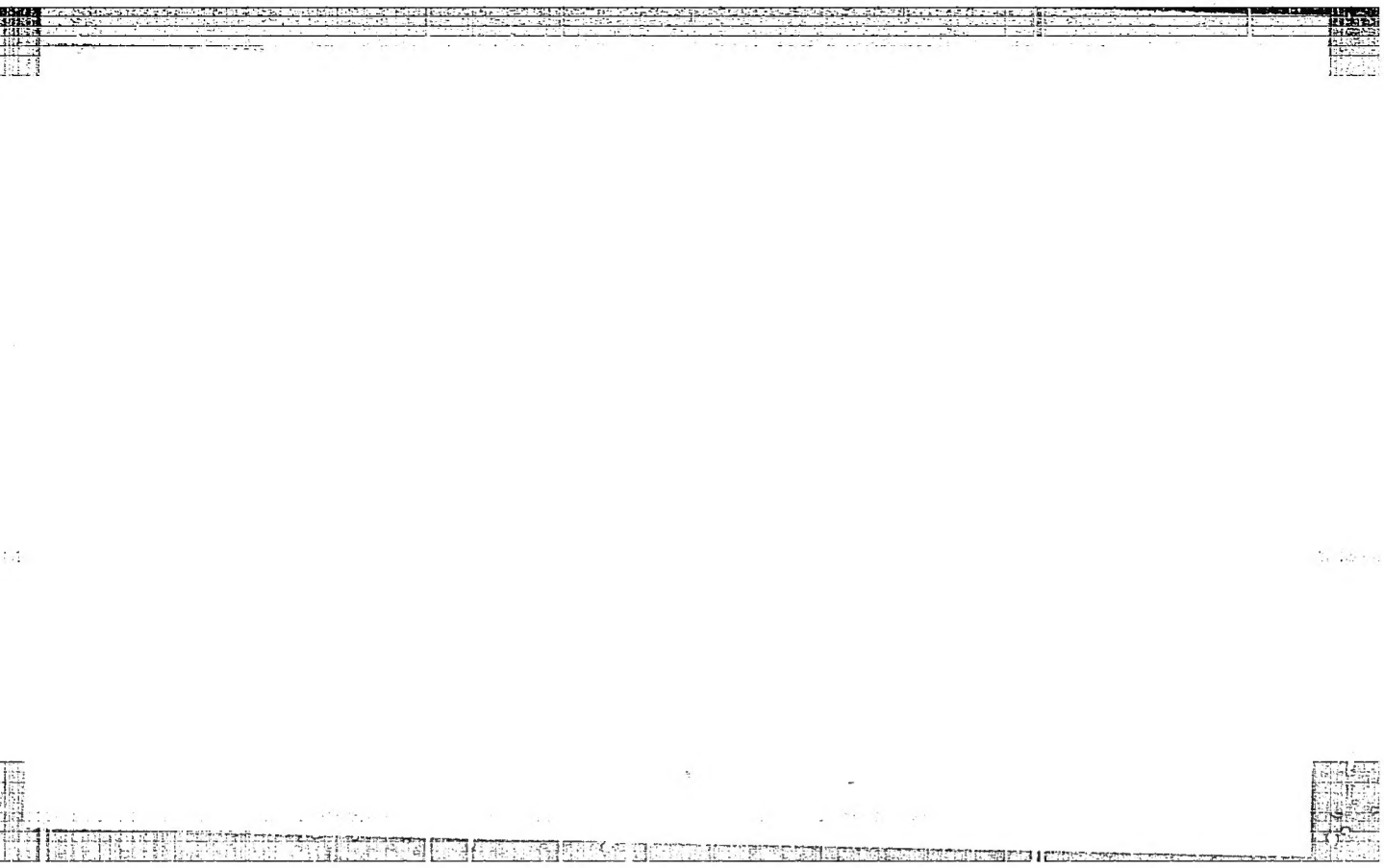


APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963820008-4"

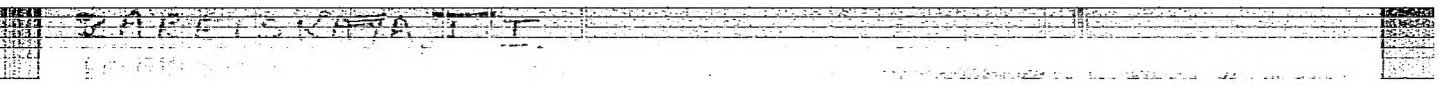


APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963820008-4"

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963820008-4"



APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963820008-4"



APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963820008-4"